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Customer No.: 31561
Application No.: 09/837,465
Docket No.: 14536-US-PA

IN THE TITLE

A METHOD OF MANUFACTURING PRINTED-ON-DISPLAY ANTENNA OF
FOR WIRELESS DEVICE MOBILE PERSONAL TERMINAL

IN THE ABSTRACT

A method of manufacturing a printed-on-display (POD) antenna is mounted on a
for a wireless device is provided mobile personal terminal. The POD antenna is formed
of First, a conductive transparent material such as layer comprising indium oxide doped
with tin oxide (ITO) is coated on a glass substrate. The POD antenna is printed on a
glass substrate of display of the personal terminal by physical vapor deposition (PVD)
or chemical etching. Pattern of the POD antenna is configured to have a radiation
pattern the same as a conventional monopole antenna and an omni-directional
characteristics. Hence, the POD antenna may be embedded, resulting in an elimination
of drawbacks of conventional exposed antenna such as liable to damage, complex in
assembly, and high in cost. Next, a photoresist layer is coated on the conductive
transparent layer and then a mask having an antenna pattern is disposed on the
photoresist layer. Next, the mask is exposed by ultraviolet (UV) rays. Thereafter, the
photoresist layer is developed and cured. Finally, the conductive transparent layer is
etched to form a patterned conductive transparent layer and subsequently the patterned
photoresist layer is removed.

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